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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,185	10/31/2003	Thierry Bieler	31849.41	9898

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EXAMINER

COMAS, YAHVEH

ART UNIT PAPER NUMBER

2834

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/698,185

Applicant(s)

BIELER ET AL.

Examiner

Yahveh Comas

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 October 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments filed 10/31/2005 have been fully considered but they are not persuasive for the following reasons:

Applicant argument regarding the Prior Art not showing a nanocrystalline alloy characterized by nano scale grains consuming between about 70% and about 80% of the nanocrystalline alloy by volume wherein the grains are homogeneously dispersed in an amorphous matrix is not persuasive since having nanocrystalline alloy wherein the grains consume between about 70% and about 80% of the nanocrystalline alloy by volume. However, it would have been obvious to one having skill in the art at the time the invention was made to provide nanocrystalline alloy characterized by nano scale grains consuming between about 70% and about 80% of the nanocrystalline alloy by volume, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only ordinary skill in the art. *In re Aller*, 105 USPQ 233. In the instant case the Lindquist et al. U.S. Patent No. 6,737,784 discloses the use of these materials, referring to the nanocrystalline alloy, since it has a low core loss and low magnetostriction. Lindquist disclose the benefits of having said material, therefore it is not inventive to discover the optimum or workable ranges by routine experimentation such as having grains consume between about 70% and about 80% of the nanocrystalline alloy volume. The rejection is sustained.

Regarding the grains being homogeneously dispersed in an amorphous matrix, it has been held that the method of forming a device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new grounds of rejection.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1-19, 22 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mihalko U.S. Patent No. 4,937,485 in view of Lindquist et al. U.S. Patent No. 6,737,784.

Mihalko discloses a electric motor use in a surgical procedure comprising a motor output member, a driven member coupled to the motor output member, and a driven member (29) having a winding (19) and a magnetic portion (29) disposed proximate the driven member (13) such that energizing the driving member imparts motion to the driven member. Also disclose a dc configuration use in a linear motor (fig. 10), disc-shaped motor (fig. 9) and outer rotor motor (fig. 8) but does not show a magnetic portion comprising a nanocrystalline alloy characterized by nano scale grains consuming between about 70% and about 80% of the nanocrystalline alloy by volume wherein the grains are homogeneously dispersed in an amorphous matrix. However Lindquist disclose the use of nanocrytalline structure in order to low core loss and low saturation magnetostriction.

Therefore it would have been obvious to one having skill in the art at the time the invention was made to modify Mihalko's invention and provide a magnetic portion made of nanocrystalline alloy as disclosed Lindquist since that would had been desirable for having a structure with to low core loss and low saturation magnetostriction.

Regarding claim 2,3, 7, 8 it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Mihalko's invention in view of Lindquist and made the nanocrystalline alloy of a thickness between 100µm and about 100 mm, in order to optimize performance of the machine, and because it has been held that merely optimized known dimensions is within the ordinary skill in the art. (See *In re Aller*, 105 USPQ 233.)

Regarding claims 5 it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Mihalko's invention in view of Lindquist and provide a nanocrystalline alloy comprising a baron-based alloy since it has been held to be within the general skill of the worker in the art to select a know material on the basis of its suitability for intended use as matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

2. Claims 19 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Philipp U.S. Patent No. 5,093,593 in view of Lindquist et al. U.S. Patent No. 6,737,784.

Philipp discloses a surgical instrument (10) comprising a housing, a power source, an output shaft (24) extending from the housing, a rotor (23) coupled to the output shaft, and a stator (34) having a winding (31) selectively connectable to the electric power source, and a magnetic portion disposed about the rotor (23). Also the surgical instrument comprises a surgical tool coupled to the shaft wherein said surgical tool is detachable from the output shaft (24). Philipp discloses the claimed invention except for the magnetic portion comprising a nanocrystalline alloy characterized by nano scale grains consuming between about 70% and about 80% of the nanocrystalline alloy by volume wherein the grains are homogeneously dispersed in an amorphous matrix. However Lindquist disclose the use of nanocrystalline structure in order to low core loss and low saturation magnetostriction.

Therefore it would have been obvious to one having skill in the art at the time the invention was made to modify Philipp's invention and provide a magnetic portion made

of nanocrystalline alloy as disclosed Lindquist since that would had been desirable for having a structure with to low core loss and low saturation magnetostriction.

3. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mihalko U.S. Patent No. 4,937,485 in view of Lindquist et al. U.S. Patent No. 6,737,784 in further view of Sugg U.S. Patent No. 4867158.

Mihalko in view of Lindquist disclose the claimed invention except for the power source being a rechargeable battery. However, Sugg discloses a surgical instrument using a rechargeable battery to operate the motor.

Therefore it would have been obvious to one having skill in the art at the time the invention was made to modify Mihalko's invention and provide a rechargeable battery (36) disclosed by Sugg since that would had been desirable for operating the motor.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yahveh Comas whose telephone number is (571)272-2020. The examiner can normally be reached on 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YC

  
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